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ABSTRACT

This monograph explores implications of the psychology of consciousness for education. The psychology of consciousness encompasses the relationships among behavior, experience, and states of consciousness. It is interpreted to include different states of consciousness, paranormal phenomena, mystical experiences, dreams, psychic healing, and other rare or unusual abilities. Basic premises are that as understanding of the human mind changes, disciplines related to psychology change and, further, that a revolution in psychology usually foreshadows a revolution in education. Consciousness psychology is particularly relevant to education because it draws attention to neglected areas of the human brain and to skills that remain there to be nourished. Major mental functions emphasized in consciousness psychology include relaxation, receptivity, release, memory, cognition, emotion, intuition, and motor output. If educators can use these mental functions to produce different thought patterns, they will be able to help students perform more creative problem-solving tasks. A preliminary model of consciousness education would be based on several assumptions, including that consciousness can be developed as a domain of education, that human ability resides in one or several states of consciousness, and that a fully educated person can select and alter states of consciousness to serve various purposes. (DB)

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# CONSCIOUSNESS, PSYCHOLOGY, and EDUCATION

## - A Speculative Essay -

by

Thomas Bradford Roberts

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Time, events, or the unaided individual action of the mind will sometimes undermine or destroy an opinion without any outward sign of change .... No conspiracy has been formed to make war on it, but its followers one by one noiselessly secede. As its opponents remain mute or only interchange their thoughts by stealth, they are themselves unaware for a long period that a great revolution has actually been effected.

Alexis de Tocqueville

## PREFACE

This essay is the first of a proposed series of monographs. The others will also have to do with the implications of the psychology of consciousness for the world of learning. Related topics in this series will include consciousness counseling, redomaining, research needs and research leads, moral development and psychological needs, special education, and some profound questions raised for the intellectual community.

This outline of the psychology of consciousness and some of its educational implications illustrates consciousness psychology only. There are also consciousness sociology, consciousness philosophy, consciousness anthropology, consciousness biology, and so forth. We are not taking part in a paradigm shift of only one field. Our understanding of mind is changing, and when that changes, every study of the mind changes. All disciplines and applied fields use the human mind. What will happen to them if we discover that we can do new and different things with this omnipresent tool of intellectual effort? These differences alter the nature of the sciences, scientific practices, and many of the assumptions they rest on. When assumptions of any field change, so do the contents of courses in that field and its implications for education and for other institutions. What might happen in educational philosophy, sociology, and so forth?

What if knowing, perceiving, and thinking turn out to vary from one state of consciousness to another? What if truth itself changes from state to state? What profound questions does the psychology of consciousness raise for our minds about our minds? I hope this book will provoke you to think about these questions.

One of the things that is happening all over the world today is a bubbling up of interest everywhere in all the extraordinary and special gifts that we find in some human beings... This mosaic appears to be diverse. Yet underneath is a common assumption about human nature: that the exploration of consciousness is vital to further human development and survival.

My View of Human Nature

Margaret Mead

# CONSCIOUSNESS, PSYCHOLOGY AND EDUCATION

by

Thomas Bradford Roberts

At first glance, the psychology of consciousness seems esoteric and far removed from educational theory and practice. What interest could different states of consciousness, paranormal phenomena, mystical experiences, dreams and associated phenomena, psychic healing, and other rare or unusual abilities have for the ordinary classroom teacher or counselor? What light could be shed on learning and teaching, on policy and practices? On closer examination the implications of the psychology of consciousness for these and many more topics look immense in both impact and opportunity. The consciousness education model presented here illustrates some ways this psychology can be applied in education, counseling, and research.

## The Psychology of Consciousness

The psychology of consciousness studies the relationships among behavior, experience, and states of consciousness. As it is used here, "consciousness" means an overall pattern of mental functioning at any given time. (See below for elaboration on this use.) Typical Western approaches to consciousness recognize only three states 1) waking, 2) sleeping, 3) dreaming. While these three are also recognized in the psychology of consciousness, they are seen as overly broad and probably include several more specific states each. Additional states and substates are recognized by most psychologies which have made a point of studying them. Some of these are described by Metzner in Maps of Consciousness (1971), Tart in Transpersonal Psychologies (1975), Fadiman and Frager in

... creativity, fantasy, direct feeling, immediacy of experience, openness to the sensual, biological and animal, capacity to full sexual enjoyment or easy childbirth, ability to play, humor, adult childishness, even the ability to sleep and dream ... all require an ego which can leave the stage.

The Dictatorship of the Ego

Kenneth Keniston

Personality and Personal Growth (1976). It is beyond the scope of this essay to discuss these here other than to note that there may be hundreds or thousands of states.

By looking at both behavior and experience the psychology of consciousness accepts both objective behavior observable to an outside observer and subjective, inner experience. It assumes that a complete psychology must study all human experience, both inner and outer. This gives it the strength of a larger data base and a larger number of variables for research.

New Mindview. Consciousness psychology is distinctive and exciting because it recognizes states of consciousness and human abilities that have not been recognized by most Western psychological theories. One of these is the transpersonal aspect of human nature. Many psychologists, educators, and therapists, perceive the development of the person, (or of self, ego, personality, identity, or individuality) as the goal of their work. Certainly this is a good goal and should be encouraged, but these therapies, because of their emphasis on the person have been unable or unwilling to perceive that human existence and the human mind go far beyond the personal. Transpersonal studies, on the other hand, recognize both the personal and the beyond-the-personal parts of human experience. The transpersonal nature is elaborated on several places below.

From a psychoanalytic perspective, the unconscious has always been recognized; but from a consciousness perspective, the traditional psychoanalytic view of the unconscious is a narrow slice of a much larger field. Various psychologies of consciousness see the individual unconscious as going back to birth and before and also see a collective unconscious extending beyond the person (self, individual, ego, or personality). These transpersonal psychologies run contrary to most of the assumptions of Western

Subjective mental phenomena can no longer be written off and ignored in objective explanations and models of cerebral functions, and mind and consciousness become reinstated into the domain of science from which they have been largely excluded since the advent of behaviorism and dialectic materialism.

Roger W. Sperry

psychology and education (e.g., Tart 1975, Grof 1976). However, transpersonal psychologists assert that new and renewed scientific methods make it possible to explore these areas carefully, systematically, and reliably (Walsh and Vaughan, 1980).

Typical topics studied in the psychology of consciousness are states of consciousness (e.g., ecstasy, dreams, drug states) and ways of producing them (e.g., hypnosis, deep relaxation, meditation). An unresolved problem is confusion between states per se and the way(s) of producing them. For example, "hypnotic state" and "meditative state" describe methods of achieving states rather than naming the states themselves. Since it is likely that some states, (e.g., ecstasy) can be produced by several methods, this problem remains to be clarified. The literature on states of consciousness is large; the Journal of Altered States of Consciousness specializes in this topic, and Brain/Mind Bulletin often reports on them too.

A particularly knotty problem is clearly distinguishing one state from another. Tart suggests a felt shift in the quality of consciousness which is accompanied by a shift in the mixture of the 10 subsystems which compose a state of consciousness (see below). Such a shift might be subjectively felt or objectively observed. Other possibilities include the appearance or disappearance of a capacity, a marked change in a capacity (such as memory), or a change in physiological correlates. At this point, a good policy for working on this problem seems to be a combination of theoretical and applied approaches because theory and practice offer broader data than either alone, and eventually they should agree with each other.

Social and Intellectual Background. Where did transpersonal and consciousness views of human nature start? They go back thousands of years and are part of most religious traditions. Recent interest was sparked by the

I should say also that I consider Humanistic, Third Force Psychology to be transitional, a preparation for a still "higher" Fourth Psychology, transpersonal, transhuman, centered in the cosmos rather than in human needs and interest, going beyond humanness, identity, self-actualization and the like.

Abraham Maslow

Toward a Psychology of Being

work of Abraham Maslow. In his later works, he talked about a stage beyond self-actualization, transcendence of the ego (Roberts, 1978). In studying this realm, Maslow entered the area of consciousness, and in his later years was interested in the psychology of consciousness and transpersonal psychology, one of its subfields. From a theoretical perspective, the main points to notice are: 1) transcendence is a need above and beyond self-actualization; 2) we have a natural, healthy, human desire to ascend the needs hierarchy, including climbing to self-actualization and beyond self-actualization to transcendence.

In 1969 Tart's Altered States of Consciousness anthologized 35 papers on a wide variety of states and illustrated that a coherent area of study could be woven from these diverse threads. Tart challenged psychology:

> The most important obligation of any science is that its descriptive and theoretical language embrace all the phenomena of its subject matter; the data from [altered states of consciousness] cannot be ignored if we are to develop a comprehensive psychology. (p. 5)

Tart's challenge is being taken up by consciousness psychologists, educators, and therapists. Most recently the works of Grof (1976, 1977, 1979) have explored transpersonal and consciousness psychologies and begun mapping parts of the mind that are still taboo to many Western psychologists. Meeting all the criteria for a new paradigm (reproducible anomalies, broader theory, new research methods, and new problems to solve), Grof's research may be as influential in Twenty-first Century thought as Freud's in Twentieth Century thought. (See Liberal Education below).

Education and Therapy. The development of healthy approaches toward exploring and developing consciousness adds two new kinds of goals and roles to educators' and counselors' jobs. In addition to helping students and

When reason rules, then dreams and prophecies, psychic insights and unconscious forces go underground and fester. Rationalism's success in cutting off access to our deep psychic and spiritual dimensions suppressed half our life. And suppression proverbially acts like the unrelieved pressure cooker. Sooner or later it blows up. It may well be that the holocausts of the twentieth century--the irrational rages of persons and nations, the closed and malevolent political systems, the "authorized" killing of millions-is partly the direct result of the rationalizing zeitgeist which relegated one half of human nature to the subconscious stockpile where it spawned hot house chimeras before emerging again through the back door onto the playing fields of history, seeding the world with chaos and the demonic.

Jean Houston

Myth, Consciousness, and
Psychic Research

clients actualize or self-actualize, we have a new goal: transpersonal actualization. This involves the development of the parts of the personality that go beyond the self, beyond the personality, and beyond the ego. A second new job for these professionals is helping people explore and develop consciousness in healthy ways. Unfortunately, we often force this natural desire into the unconscious, to re-emerge later in unhealthy self-destructive and socially destructive ways. Suddenly, there is a whole new domain for educators and mental health professionals.

In keeping with the assumption that we have natural desires to explore consciousness and experience transcendence, we see a public fascination with consciousness in the emergence of a new version of the hero archetype, the Consciousness Explorer. In 2001: Space Odessey, the hero explores his consciousness at the end of his journey; he goes forward and backward in time and space. In Star Wars, Close Encounters of the Third Kind, Star Trek, and many other shows, the exploration of time, space, and identity excites us, and millions of viewers around the world see these shows time and time again. The Consciousness Explorer appears in the writings of Timothy Leary, Stanislav Grof, Carlos Casteneda and Don Juan, Aldous Huxley, John Lilly, Jean Houston and Robert Masters, often in the guise of medicinemen or shamen (Halifax, 1979). Researchers in the occult, the supernatural, and psychic phenomena, are Consciousness Explorer heroes. One of our duties as persons, parents, and professionals is to encourage the responsible exploration of these consciousness areas, sometimes called "inner exploration" or "inner frontiers."

In the late 1970's, the psychology of consciousness expanded from a small field with a few anomalous interests into a major approach to psychology. Most introductory college psychology texts now have chapters on

Is the human species evolving in new ways more suitable of transcending our present culture? Perhaps. There seems to be meaning in the development of our greater self-awareness, in the realization of our potential strength and power, in our ability to control our neurological functions, in our capacity to form close and harmonious communities, in our recognition that the peak of scientific knowledge is similar to the peak of mysticism, some meaning in our expansion into alternate states of consciousness, to our growing use of psychic forces and psychic energy.

Some New Directions -- A Personal View

Carl Rogers

consciousness (e.g., Bourne & Ekstrand; Hilgard, Atkinson & Atkinson; Kagan & Havemann; Krech, Crutchfield & Livson; Zimbardo & Ruch). Courses and research in the psychology of consciousness and related topics are being taught at many colleges and universities in the United States, Canada, and abroad (Jahn, 1978; Association for Transpersonal Psychology, 1979; Brain/Mind Bulletin, 1975+). These courses are not limited to psychology departments, but also appear in engineering, philosophy, religion, education, biology, anthropology, and sociology. A number of institutes specially set up to study this area and related areas have been founded. Professional organizations are also beginning to express interest in consciousness and its cognate fields with topical issues of publications, symposia, and/or special interest groups/divisions. These include the American Association for the Advancement of Science, American Psychological Association, Phi Delta Kappan Educational Foundation, SAGE Foundation, American Personnel and Guidance Association, and the American Educational Research Association.(1)

These flirtations with consciousness studies, even those with an educational emphasis, have examined only specific topics. Fragments of theory, anecdotes, descriptions, and research abound, but they are for the most part only tangentially related to each other. An overall paradigm is lacking. An integrated and coherent model of consciousness education is needed to promote further research and development on the educational implications of the psychology of consciousness.

For the purpose of brevity, I refer to all these fields simply as the "psychology of consciousness," "consciousness studies," or "consciousness education." Consciousness studies attempt, among other things, to study the

Reason, or the ratio of all we have already known,
is not the same that it shall be when we know more.

William Blake

layers of mind where thinking originates. They are interdisciplinary; one might even say "pre-disciplinary." Historically, many of the topics that fall within the range of consciousness studies have been considered outside the realm of scientific endeavors and not open to investigation. Recently, this has changed dramatically. Consciousness studies are bringing established scientific methodology to areas which until recently had been beyond their boundaries and are developing new methods specifically to study consciousness. In a very real sense, the realm of science is being expanded to include states of consciousness and related phenomena.

As science expands, so does education. What implications does this new science have for schools, counselors, and child development? This enlarged scientific understanding can result in increased understanding of human learning and culture. It has happened for half a dozen psychologies before, leading us to expect the same from the psychology of consciousness.

Brain Hemispheres and Consciousness. We are told that the left (linear, logical, analytic) hemisphere of the brain is predominantly conscious and that the right (visual, spacial, pattern-seeing) hemisphere is predominantly unconscious. This may be an accurate description for now, but not necessarily the way things always must be. One can think about this difference in another way; not as an unchangeable given state, but as a report about our current progress on making parts of our brain and their functions conscious.

Suppose that both hemispheres were largely unconscious some time in humanity's past. Then, for some reason, consciousness developed in the left hemisphere, giving rise to our great mathematics, philosophy, medicine, technology, and so forth. From this view, we have only just begun the job of expanding consciousness throughout the brain.

This oceanic feeling of wonder is the common source of religious mysticism, of pure science and art for art's sake; it is their common denominator and emotional bond.

The Act of Creation

Arthur Koestler

Is the right hemisphere by nature largely unconscious, or is it that way because our culture has neglected it? Now we are on the trail of exploring the right hemisphere, of making it conscious through dance, art, music, visualization, by using some of the transpersonal and consciousness ways of growing. What new accomplishments, potentials and capacities may come from exploring the right hemisphere? What will happen as we expand our consciousness into the visual-spacial-atemporal domains that are reached through the right hemisphere? Abstract reasoning and all its fruits are skills we have developed by making the left hemisphere conscious. Are we on the verge of discovering the analogous right hemisphere skills?

It matters little whether the so-called "right hemisphere" abilities are in the right cerebral hemisphere or not. They might just as well be in the right ear, elbow, or toe. The most important thing about left/right hemisphere studies is that they draw attention to neglected areas of the human brain and to the skills that remain there to be nourished. This nourishment is part of consciousness education. When humanity first intentionally began to develop left hemisphere skills, who could have dreamed of the magic of our technology? After we learn to make the right hemisphere conscious, will we then start on the conscious control of the rest of the brain? What undreamed of benefits remain to be realized there?

Finally, when considering right hemisphere development and consciousness education, an important distinction must be made. Access to "right hemisphere" abilities can be in our ordinary state or can be via switching state of consciousness. In fact, fascinating research questions arise if we look at right/left hemisphere studies from a consciousness perspective. How do right/left abilities vary from state to state? Are the differences

Rational consciousness ... is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence; but apply the requisite stimulus, and at a touch they are there in all their completeness. No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded. How to regard them is the question—for they are so discontinuous with ordinary consciousness. Yet they may determine attitudes though they cannot furnish formulas, and open a region through which they fail to give a map. At any rate, they forbid a premature closing of our accounts with reality.

William James

The Varieties of Religious Experience

we've found so far just those of our ordinary state? Will other hemispheric differences and similarities emerge as we study other states of consciousness? Can we teach the hemispheres to work alternately or simultaneously on a task?

3 R's on the Right. So far the evidence indicates that "right-hemisphere" learning both opens up right-hemisphere abilities and assists left-hemisphere learning. Seldom distinguishing among transpersonal, consciousness, and right-hemisphere psychologies, educators have been quick to apply these fields (e.g., Hendricks and Wills, 1975; Hendricks and Fadiman, 1976; Hendricks and Roberts, 1977; Roberts, 1975; Roberts and Clark, 1975; Buzan, 1976; Samples, Charles, and Bernhart, 1977; Edwards, 1979; Ostander and Schroeder, 1979; Rozman, 1975; Brain/Mind Bulletin, 1975+). The list could be many times as long. Hendricks and Roberts (1977) list over 1200 items in a bibliography on transpersonal/consciousness education, ranging from esoteric religious education to biofeedback conditioning. While the results are almost uniformly good (in fact, some are amazing, "Education Theme Packs," Brain/Mind Bulletin, 1977, 1978, 1979; Ferguson, 1980) their anecodotal and descriptive natures indicate exciting and valuable contributions yet to be made by future educational researchers. A bibliography of consciousness education since 1977 could well exceed the Hendricks-Roberts list.

Perhaps some day we will speak of the "3 R's" of the right hemisphere:

Relaxation (allowing the mind and body to work on their own without our interference)

Receptivity (allowing us to perceive more fully things going on outside our bodies as well as in them and in our minds)

Release (temporarily setting aside the left hemisphere's critical analyzing and the ego's incessant demand to dominate).

The words of the language, as they are written or spoken, do not seem to play any role in my mechanism of thought. The physical entities which seem to serve as elements of thought are certain signs and more or less clear images which can be "voluntarily" reproduced and combined . . . Taken from a psychological viewpoint, this combinatory play seems to be the essential feature in productive thought -- before there is any connection with logical construction in words or other kinds of signs which can be communicated to others.

Albert Einstein

Hemispheric education is but one input into consciousness education. Its early acceptance and successes may predict additional benefits from other sources. The combination of hemispheric research and biofeedback conditioning is an excellent way to introduce current educators to the whole field of consciousness education because physiology and behavioral conditioning are already parts of the current paradigm. Their tastes are familiar; we feel at home with them.

But, when they are used to produce different patterns of mental functioning we step from a traditional physiological-behavioral paradigm to a consciousness paradigm. Brainwave training illustrates this transition. Much research supports the idea that creativity is enhanced in certain states of consciousness. At the Menniger Foundation biofeedback researchers Elmer and Alyce Green found they could teach people to change their state of consciousness by slowing the activity of their hemispheres (1977). Their subjects learned to produce a very relaxed reverie state, the theta state. This might appear to be a mere curiosity until one looks at the history of creative problem solving. Most creative insights in the sciences and mathematics occur in a relaxed, free-floating state. We often focus on differences between science and art, but they both rely on these creative insights for their advancement. Have the Greens hit on a way to enhance creativity using an electroencephalograph? Here is an example of how advanced, left-hemispheric technology can support creative (right-hemisphere?) abilities.

Presumably, states of consciousness give access to many abilities. Some are associated with the right cerebral hemisphere. Others are not. One should not confuse the much larger psychology of consciousness with the more specific left/right hemisphere studies. Limiting "consciousness education" to the education of the intuitive mode or domain is to confuse proboscis with pachyderm.

Since psychology is basic to education in the same way that biology is to medicine, a revolution in psychology usually foreshadows a revolution in education.

The Affective Domain and Beyond

Robert Kantor

## A Model of Consciousness Education

Consciousness education regards the development of our full range of states of consciousness as a goal of education. This includes our current abilities, abilities which are rare but sometimes apparent (such as psychic abilities, the placebo ability, and parapsychological abilities), and it also includes the possibility that there are other unknown capacities which we have yet to discover and yet to develop.

Liberal education, as the name indicates, is an education to free people. There is an additional freedom for liberal education to teach if one looks at it from the point of view of states of consciousness. Freedom is not only freedom to pursue intellectual questions wherever they may lead, or the freedom that comes from a fully developed intellect, or the freedom that comes from being able to know and control one's emotions. A new type of freedom is showing itself. This is the freedom to select one's states of consciousness, the freedom to go from one state to another and to develop oneself in all states. The idea of liberal education from a consciousness perspective goes far beyond the area of intellect. It certainly includes developing a fine intellect, but there are nonintellectual qualities and abilities of the mind, for example, fantasizing, dreaming, sensing, and intuiting. There are also states of consciousness in which intellect plays a different function; when dreaming, for example, we think visually using association, and allow contradictory situations. If we are to develop the intellect fully, we must develop it fully in all states. If we are to have truly free minds, we must have minds which do not wear the intellect as an albatross. However, this does not mean that consciousness education is anti-intellectual. It is very clearly pro-intellectual because

Obscurantism is the refusal to speculate freely on the limitations of traditional methods. It is more than that: it is the negation of the importance of such speculation, the insistence on incidental dangers ... Today scientific methods are dominant, and scientists are the obscurantists.

Alfred North Whitehead

it wants us to develop all of our abilities, including the intellectual ones. To be truly free, we would have to develop all our abilities and all our states of consciousness.

## Assumptions

The following are the main assumptions of a preliminary model of consciousness education and consciousness studies.

1. "Consciousness" as it is used here means "a pattern, an overall style of mental functioning at any given time."
2. States of consciousness are systems composed of 12 subsystems. Each of these subsystems can be developed as a domain of education.
3. As one learns to control and use these domains, one learns to compose or produce desired states of consciousness voluntarily. This is called expanding consciousness.
4. Human abilities and disabilities reside in one or several states of consciousness. Each ability and disability is stronger in some states of consciousness and weaker, or nonexistent, in others.
5. As one learns to select one's state of consciousness, one increases the number of abilities and skills one can learn, develop, and use. The more states of consciousness one can produce the more capacities one has available.
6. A fully educated person can select the appropriate state of consciousness for his/her purpose, voluntarily enter it, and use and develop the abilities that reside there. From a curricular perspective, we can call this the Curriculum for Voluntary Control of States of Consciousness, or "Consciousness Curriculum."

Meditation, reverie, relaxation, and other assorted psycho-technologies tend to increase the slower, larger brainwaves known as alpha and theta. Inward attention, in other words, generates a larger fluctuation in the brain. In altered states of consciousness, fluctuations may reach a critical level, large enough to provoke the shift into a higher level of organization.

The Aquarian Conspiracy

Marilyn Ferguson

Consciousness

*"Consciousness" as it is used here means "a pattern, an overall style of mental functioning at any given time."*

Because the term consciousness is used in a variety of ways, some very vague and ambiguous, it is helpful to clarify its use in this context. Here consciousness means "a pattern, an organizational style of one's overall mental functioning at any given time," (Tart, 1975). This definition excludes many common uses of the term consciousness. As used here, it does not mean "conscious" as distinguished from being unconscious, as in a coma or asleep. It does not mean "aware of oneself" as in "He became conscious of his own ability to think," nor does it mean "conscious" in the sense of "self-aware."(2) Another use excluded here is found in economics and political science: the feelings or thoughts of a group, as "women's consciousness" or "proletarian consciousness." As used here consciousness does not simply mean what happens to be on one's mind, as one might say that people from Denver are very conscious of their football team, the Broncos. Tart's definition of consciousness as a system composed of 10 subsystems lends itself easily to educational applications. However, other definitions of consciousness which emphasize other psychological components may give rise to alternate theories of consciousness education. Different maps of consciousness such as those collected by Ralph Metzner in Maps of Consciousness (1971) suggest parallel theories of consciousness, each with its own psychological components, theory of education, and domains. Developing alternate models and comparing them remains a task for psychologists and educators of the future. Should education and therapy use what is known now or wait for a fully articulated psychology of consciousness before changing their practices?

## Interoception

The kingdom of God cometh

not with observation: ...

The kingdom of God is within you.

Luke, XVII, 20-21

It seems appropriate to employ a practice-based strategy of working with this definition of consciousness or with several others by attempting to apply them to education now rather than waiting for a definition of consciousness to be fully developed and generally accepted by large numbers of professionals. For one thing, general agreement is not likely to be achieved soon, if ever. More importantly, attempts to apply theories of consciousness will very quickly show us theoretical weaknesses and strengths. For another, a prototype is always handy, and one can never be sure that a blueprint or design is practical until it is tried, tested, improved, and retested. Perhaps, some of the domains listed under the next assumption will be successfully collapsed into one. Others may be added. Finally, professionals in education, therapy, and medicine (holistic medicine) are already using consciousness techniques. In many parts of consciousness studies practice far antedates theory. The current concepts of states of consciousness and the human abilities, actions, behaviors, and experiences they entail are probably best researched through experimental research and experiential development. Their usefulness or lack of it will be seen faster in a combination of practice and theory than by either theory or practice alone.

Subsystems-- Redomaining

> *States of consciousness are systems composed of 12 subsystems. Each of these subsystems can be developed as a domain of education.*

In States of Consciousness Tart sees a state of consciousness as a system composed of 10 interacting subsystems. A particular combination or "recipe" of subsystems is a particular "state of consciousness." These are subsystems in the sense that when one of them changes, it is likely to

| | | Sensing | Intuitive |
|---|---|---|---|
| 671 | finalists for National Merit scholarships | 17% | 83% |
| 3676 | freshmen at Ivy League colleges | 41% | 59% |
| 3503 | academic 11th and 12th graders, PA high schools | 58% | 42% |
| 1403 | non-academic 11th and 12th graders, PA high schools | 85% | 15% |
| 500 | adults who did not finish 8th grade | 99.6% | 0.4% |

Taking Type into Account in Education

Isabel Briggs Meyers

influence the others to change, too. For instance, in any state of consciousness, changing the interaction with the environment is likely to change motor output, memory, and cognitive processing as well. Operating together, these subsystems compose a system of consciousness or "state of consciousness." I have added "Intuition" as number 8 and "Moral Sense" as number 11. The reasons for adding them are too extensive to cover here other then to point out that they seem to be basic psychological components which vary from state to state. The twelve subsystems which compose a state of consciousness according to this view adapted from Tart are:

1) exteroception - sensing the external world;
2) interoception - sensing inside the body;
3) input processing - what we do with the sensations;
4) memory;
5) cognition;
6) emotion;
7) motor output;
8) intuition;
9) identity;
10) time sense;
11) moral sense, and
12) interaction with the environment.

It is beyond the scope of this essay to describe and discuss these domains. More information on them is available in Tart's States of Consciousness.

Many people have difficulty understanding consciousness education because they think only in terms of the cognitive, affective, and psychomotor domains. This view does not eliminate the current three domains. Along with nine new ones, they are included. Consciousness education includes the cognitive

Figure 1

Bloom's Domains

| State of Consciousness | Cognitive | Affective | Psychomotor |
|---|---|---|---|
| Waking | | | |

Figure 2

Consciousness Domains

| State of Consciousness | Exteroception | Interoception | Input Processing | Memory | Cognition | Emotion | Motor Output | Intuition | Identity | Time Sense | Moral Sense | Environment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Waking State(s) | | | | | XXXXXX | XXXXXX | XXXXXX | | | | | |
| Sleep State(s) | | | | | | | | | | | | |
| Reverie | | | | | | | | | | | | |
| Meditation State(s) | | | | | | | | | | | | |
| Etc. | | | | | | | | | | | | |

subsystem, which is the counterpart of Bloom's cognitive domain; an emotional subsystem, counterpart of the affective domain; and the motor output subsystem, which corresponds to the psychomotor domain. By proposing an additional nine domains, consciousness education allows educators to assimilate the idea of new domains into their current conceptual framework of domains and, at the same time, accomodate new possibilities for education.

Redomaining. Moving from our current 3 domains to the 12 consciousness domains exemplifies "redomaining." By making separate educational domains for each psychological subsystem, we open the possibility of learning to develop each domain and eventually orchestrating and composing our own states of consciousness. This is one goal of consciousness education.

Redomaining opens up vast possibilities for future development of education. Figure 1 illustrates a consciousness interpretation of education today.

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Insert figure 1 about here

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Current education considers cognitive, affective, and psychomotor domains in our waking state. Our educational practices and research are generally limited to that state, and we have done a good job of creating this state - specific education; although, more remains to be done. The waking state and Bloom's three domains form only a small part of the total field of consciousness education.

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Insert figure 2 about here

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Figure 2 illustrates consciousness education. The shaded area represents current education. In fact, it probably overrepresents today's approach because the so-called "waking state" is probably a collection of substates

. . . some 70 million Americans have had some sort of mystical experience, and about 10 million have these experiences frequently. Furthermore, Greeley (The Sociology of the Paranormal) found no evidence to support the orthodox belief that frequent mystical experiences or psychic experiences stem from deprivation or psychopathology. His "mystics" were generally better educated, more successful economically, and less racist, and they were rated substantially happier on measures of psychological well-being than those who had not had such experience.

Psi: Scientific Studies of the Psychic Realm

Charles T. Tart

that we have not yet learned to differentiate among. For example, we are in error when we combine concentration, day-dreaming, focused awareness, diffuse awareness, physical excitement, emotional excitement, and other states into the one category "awake."

Revaluing Research. Retaining its current importance, research which has already been done picks up additional significance. First, it becomes embedded in a larger matrix, giving it new meanings as part of a broader theoretical framework. Work already done on the cognitive, affective, and psychomotor domains represents progress we have already made in developing consciousness education. Second, we can use research skills developed for our current three domains and for the waking state as beginnings for exploring other states. Our established research, measurement, and evaluation skills are lying in wait to be used on other domains in the waking state(s) and in other states. To what degree are they applicable/inapplicable? What new instruments and research skills need to be developed?

An example of the extension of current research methods to a new area is William Richards' dissertation Peak Experiences, Counseling, and the Human Encounter with Death. Richards developed a questionnaire to measure the intensity of mystical experiences ("peak-experiences"). The Psychedelic Experience Questionnaire extends the use of self-report questionnaires into the mystical state of consciousness. Furthermore, he showed that improved clinical behavior in terminal cancer patients (lower dosages of pain killers, lower specific fear of death and general anxiety, less depression, and more honest and meaningful communication with family and friends) was associated with intense peak experiences:

> The data also suggested a correlation between the occurrence of a psychedelic peak experience... and the amount of clinical

Figure 3

STANDARD RESEARCH QUESTIONS

| DOMAIN | What can be learned/known? Literature search. | What goals/ objectives? Taxonomy for each. | How do age/stage effect these? Developmental questions. | How to measure/ evaluate? Testing/measurement/evaluation questions. | What methods to teach these? Methods development and research. | What place in curriculum? Curricular questions. | How do ethnic/ other minority groups vary? Sociological questions. | Implications for gifted/ disabled/etc.? Special education questions |
|---|---|---|---|---|---|---|---|---|
| Interoception | | | | | | | | |
| Exteroception | | | | | | | | |
| Input-processing | | | | | | | | |
| Memory | | | | | | | | |
| Cognition | | | | | | | | |
| Emotion | | | | | | | | |
| Motor output | | | | | | | | |
| Intuition | | | | | | | | |
| Identity | | | | | | | | |
| Time sense | | | | | | | | |
| Moral sense | | | | | | | | |
| Interaction with environment | | | | | | | | |

> improvement. Six of the 22 patients had what was judged to be an intense peak experience under LSD and of these 5 were the patients who later improved most dramatically. (p. 89)

Combining experience, behavior, and state of consciousness, his work well illustrates that research can be done using a consciousness paradigm.

Richards' research also illustrates one challenge that consciousness research presents to psychology and therapy. Conventional psychological wisdom assumes that peak experiences, or mystical experiences, indicate neurosis or psychosis; however, evidence is accumulating that these experiences, far from indicating illness, may be the single most powerful therapeutic event available in the therapist's armamentarium. While it is beyond the scope of this essay to discuss the possibility, one should note that the "new therapies," the transpersonal therapies, make this assumption. Certain aspects of biofeedback training, meditation, drug therapy, and other transpersonal therapies challenge the widely assumed view of the mind held by most professional psychologists, therapists, and educators.

The third and most important contribution of established research to consciousness research are the standard research questions and topics.

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Insert figure 3 about here

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For example, what objectives are possible in the intuitive domain? How does a student learn to intuit? What ages are best for awakening intuition? Suddenly, educational research has an enormous number of experiences, behaviors, and states to investigate. For each of these all the traditional questions get reasked and many new questions specific to the consciousness paradigm add additional lands to the geography of psychological and educational research.

The manifesto of the person ... marks one of the great turning points in the human story ... We may come to see that tribe, nation, class, social movement, revolutionary masses ... that all these have, like shadows that eclipse the sun, gained their existence at the expense of something far brighter and more beautiful; our essential and still unexplored self. And, recognizing that truth, we may seek to replace these "higher" social allegiences with an astonishing ethical propostion — <u>that all people are created to be persons</u> and that persons come first, before all collective fictions.

<u>Person/Planet</u>

Theodore Roszak

Expanding Consciousness

> *As one learns to control and use these domains, one learns to compose or produce desired states of consciousness voluntarily. This growth is called expanding consciousness.*

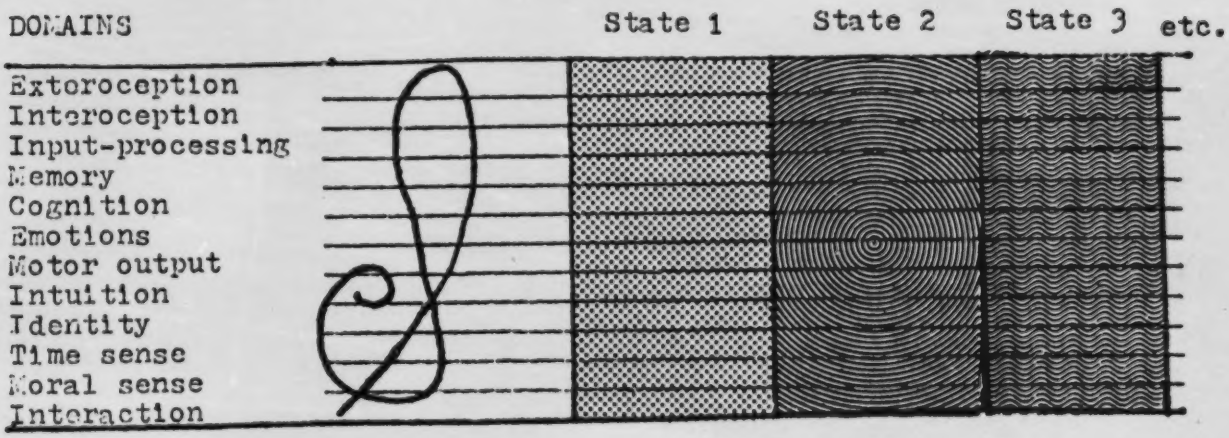
In this assumption, control means "to take voluntary control of." In some cases this means releasing ego control. True control does not prohibit, stifle, or even command, but also includes the ability to give up ego control at the appropriate times and let the mind take its natural course. For example, in the emotional domain, controlling one's emotions does not mean stifling them or not expressing them. At certain times, one may wish not to express his/her emotions, but at other times emotional expression is necessary and desirable. Someone who has full control of the emotions can select the appropriate times and places for emotional expression and the appropriate times not to express them. Since the ego states of consciousness are seen as a subset of all states, control in this broader sense sometimes means control by the ego, and sometimes it means directing the ego to relinquish control.

Music for the Mind. Composing, controlling, and perceiving consciousness are easily understood if we compare consciousness and its 12 subsystems to an orchestra with 12 sections. If we imagine an orchestra divided into twelve sections, we can see that each section is capable of variation within itself, possibly great variation, but each section is also part of the overall orchestra, just as each subsystem is part of the state of consciousness. Each of the sections can change. We can add more violins or take out cellos. For flavoring, we can put in more or less timpani, speed them up and slow them down, make them louder or softer, etc. Every time an instrument

Figure 4

COMPOSITIONS FOR MIND

IN INFINITE VARIATIONS



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or section is changed, the feel of the whole music changes. As we learn to play the various subsystems of consciousness, we learn how to compose, play, and orchestrate states of consciousness. Consciousness education teaches us to "play" these psychological subsystems or educational domains.

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Insert figure 4 about here

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We might think of a particular type of music such as a waltz as being analogous to a state of consciousness. Among the waltzes there is a great deal of room for creativity, difference, and latitude; however, there are certain characteristics that make music a waltz and not a polka. Just as musical instruments and arrangements have certain specifiable relationships to each other in waltzes, within a state of consciousness the twelve subsystems have certain regular relationships, still leaving room for some variation. For example, within our usual waking state of consciousness, there is room for some variation of the twelve domains.

A state of consciousness specifies certain general rules or relationships, but like a musical genre or style there is still the possibility of movement, change, and variation within those restrictions. When one speaks of a state of consciousness, it does not necessarily mean an exactly prescribed state without any variation. In fact, one of the most intriguing theoretical questions is how to specify the boundaries between states of consciousness. Much work remains to be done here. We may find that one state of consciousness blends into others without a clear demarcation line, just as the colors in the rainbow blend into each other. It is up to us to specify when red becomes orange and perhaps when relaxation becomes sleep. In one sense we might think of consciousness as a twelve-color rainbow with each of the colors blending into all the other colors.

Neither by suppression of the material streaming out of the unconscious, out of uncontrolled fancy, dreams, and the byplay of the mind, nor by permanent surrender to the unshaped infinity of the unconscious, but rather through affectionate attention to these hidden sources, and only afterward through criticism and selection from that chaos—thus have all the great artists worked.

Hermann Hesse

Another example of variety within one state is the dreaming state. We know that there are different sorts of dreams, those that seem to be stimulated by the physical environment, those that take their cue from our internal-biological states, those that are influenced by telepathy or the states of other people, those which seem to have specifically bright colors, those in which color is absent or unimportant, lucid dreams (in which we are aware that we are dreaming), and so forth. Within this state which we broadly call dreaming, there are certain regularities, but within these regularities there is wide latitude for an exciting range of possibilities. As our knowledge of states of consciousness becomes more developed and more specific, we may decide to divide one of our current states into several. Different personality types may subjectively experience their states of consciousness differently. Perhaps we should even invent "consciousness types" similar to "personality types." Much challenging experimental and conceptual research remains to be done.

Tertiary Process Thinking. While most psychoanalytically-oriented psychologists and psychiatrists recognize the difference between magical, childlike, primary process thinking and adult, rational, secondary process thinking, few recognize that there is a type of mental activity which surpasses secondary process thinking. Tertiary process thinking consists of the ability to decide consciously what mode of mental operation, state of consciousness, to use at a particular time. Depending on one's purpose, he/she might decide to use meditation, reverie, linear thinking, holistic-patterned thought, dreams, association, etc. A tertiary process thinker knows about states of consciousness, how to produce them, and how to use them. A tertiary process thinker might also decide to use sensation, intuition, thinking with the body, fantasy, or any number of abilities which until recently had been disdained as "only primary process thinking."

There are two ways to slide easily through life: to believe everything or to doubt everything; both ways save us from thinking.

Alfred Korzybski

Ego mental functioning tends to be secondary process thinking. As one expands beyond the usual ego functions, one expands into tertiary process thinking. One learns to choose one's pattern of mental activity and to select the most appropriate sequence of patterns. For someone unfamiliar with tertiary process thinking, it is easy to confuse the voluntary control of consciousness with the involuntary lack of control. Primary process and tertiary process are both not secondary process, but that does not make them identical. If a scientist, mathematician, or other creative person decides to use dreams or reverie for creative insight, this is primary process thinking in the service of tertiary process thinking.

Why do psychologists and educators fail to recognize tertiary process thinking? Since some tertiary mental activity goes beyond usual ego control, the ego feels threatened and resists this type of activity. The ego rationalizes its resistance to primary and tertiary processes with the mistaken idea that ego development represents optimum human development. Ego development is an important portion of full growth, and secondary process thinking is a valuable skill in our ordinary awake state of consciousness; however, we do a disservice to ourselves and to humanity by limiting our growth to ego development and by limiting our cognitive development to secondary process thinking. With the assumption that we can learn to compose or produce states of consciousness voluntarily, a higher range of mental functioning appears, one that selects and integrates the full range of psychological functions and states of consciousness.

Beyond Piaget. What does tertiary process thinking indicate about intellectual development? According to Swiss psychologist Jean Piaget, intellectual abilities start with sensory-motor learning, having to do only

Theory does not prevent the

facts from existing.

Jean Charcot

with things that can be sensed. In the second, preoperational stage symbolic thinking develops, and the child learns the difference between words and the objects they represent. Around the ages of 7-11 the child can do activities "in his head" instead of in the concrete world, but he cannot do "formal operations." Finally, between the ages of 12 and 15 adolescents are able to think about thinking and to think about things that are contrary to fact. According to this view, formal operations are the peak of intellectual development.

As a child enters each of these stages, he/she becomes able to surpass the previous stage by subsuming it in his new stage. For example, as the adolescent moves from being able to think only of real objects (or as if things were real objects) in the preoperational stage, he/she learns to think about thinking in the formal operations stage. This includes such new mental abilities as becoming aware of the rules of logic, fallacies, rules of evidence, ways of arguing, etc. At the formal operations stage he embeds concrete operational thinking in formal operational thinking.

Consciousness education asks the question, "Is there a stage (a way of using our minds) that surpasses formal operations?" It answers the question "yes." As one of 12 subsystems, cognition is embedded with 11 other subsystems in states of consciousness. As one learns to produce, control and compose these states, one steps back from the immediacy of formal operations and chooses the overall psychological context, the state of consciousness. It is as if one goes from the fine points of playing a piano to conducting a whole orchestra, piano included.

According to Herbert Koplowitz there is a stage beyond Piaget's abstract, formal relations.

Do not confine your children to your own learning,
for they were born in another time.

Hebrew Proverb

In Unitary Operations: A Projection Beyond Piaget's Formal Operations Stage (1978) he proposes post-Formal Operational thought:

> ... the transition to post-Formal Operations brings about a more holistic, less analytic approach to knowledge than that which characterizes Formal Operations. Formal Operational thought is dualistic. It draws sharp distinctions between the knower and the known, between one object (or variable) and another, and between pairs of opposites (e.g., good and bad). In post-Formal Operational thought, the knower is seen as unified with the known, various objects (and variables) are seen as part of a continuum, and opposites are seen as poles of one concept. For this reason "Unitary Operations" is proposed for the post-Formal Operations stage. (p. 32)

From the perspective of consciousness education, formal operational thought, secondary process thinking, and analytic-linear thought are steps along the path of mental growth, as well as valuable skills themselves, but they are not the final goal. One should use the skills of thinking, but not be dependent on them. As one learns to control and use the 12 subsystems of consciousness (to expand consciousness), one learns when to think with formal operations and when not to.

Residence

> *Human abilities and disabilities reside in one or several states of consciousness. Each ability and disability is stronger in some states of consciousness and weaker, or nonexistent, in others.*

A human ability may be said to reside within a state of consciousness if someone within that state demonstrates that ability. Because perception

We now know that altered states of consciousness are characterized by shifts in factors such as perception, cognition, time sense, and body image. However, disabled learners often manifest one or more of these changes in their everyday behavior. We might do well to think of poor learners in terms of the states of consciousness in which they exist and to study the literature for clues as to how learning is best attained for people in those states.

The Influence of Consciousness Research

Stanley Krippner

is also considered an ability, one's subjective experiences (whether or not varified in other states) are included as abilities too. Current education overwhelmingly educates for, and derives data from, only one state of consciousness-- the normal waking state (as illustrated in Figure 1).

Is there any evidence to substantiate the assumption that human abilities "reside" in one or another state of consciousness? Clearly, this is true for at least one ability: memory. It is well known that everything we have perceived (or at least, most of our perceptions) are stored in our memory but that we lack access to them. Hypnosis, fantasy, meditation, dream work, relaxation, mind drugs, biofeedback, electrical brain stimulation, etc.-- all can provide access to this storage. What do these all have in common? They all cause an altered state of consciousness. Thus, memory is at least a partial function of state of consciousness; that is, it varies from state to state.

If we compare our other abilities when we are awake, sleeping, or dreaming, it's apparent they are state-dependent, too. A compilation of behavior, capacities, and experiences from state to state would be of immense value for humanity's future, and especially for consciousness education and psychology.

"Abilities and disabilities" refers not only to our currently known human activities, but also to those which we do not generally acknowledge as within the range of human possibiltiy. For example, we should not rule out parapsychological abilities or psychic abilities until we have thoroughly researched these in terms of states of consciousness. Intuition and moral development are also important as abilities. Inner awareness and the capacity for rich and varied subjective experience are additional abilities

Think globally,

Act locally.

Hazel Henderson

which need to be developed. Honorton's article "Psi-Conducive States of Awareness" points the way by collecting and summarizing evidence on psychic abilities and their resident states. He associates ESP with inner awareness, "interoception" in terms of the 12 domains of consciousness education:

> Explorations of ESP in dreams, hypnosis, sensory isolation, meditation, and protomeditative practices suggest that psychic communication (or perhaps the ability to detect and recognize psychic influences) is facilitated by an inward focus of awareness (p. 632).

Since many new therapies and new teaching techniques, including biofeedback, develop interoceptive abilities, we can probably expect increased occurrences of ESP in schools, therapy, and our daily lives. For example, while teaching counselors Zen meditation in order to improve their self-actualization and interpersonal awareness, Lesh (1970) unexpectedly found that ESP also occurred.

The link between ESP and altered states of consciousness has been tightened by the doctoral dissertation of Carl Sargent at Cambridge University. Awarded the first doctorate in parapsychology from this prestigious institution, Sargent found that extroverts scored high in telepathy, while introverts scored about at chance (OMNI, 1979). His work is consistant with the assumption that different abilities reside in different states of consciousness, "It's plain that the procedures that yield the big effects are the ones that involve altered states of consciousness -- sleep, hypnosis, and so on ...". Apparently decreased exteroception and increased interoception are two keys to telepathy. Sargent used the Ganzfeld technique, which consists of altering consciousness by covering the eyes with half ping pong balls and playing white noise through earphones. Similar methods

TRANSPERSONAL: It's as American
as chop suey or pizza pie.

of entering different states include hypnosis, meditation, progressive relaxation, and dreams, Sargent points out these are also associated with ESP. After noting that sender/receiver pairs began to strike up "remarkable rapport" that overflowed into their daily lives, Sargent speculates that this method produces an unusual degree of openness between them, "I can't help seeing an important psychotherapeutic aspect here, coming from the fact that you are working with an altered state of consciousness that simply opens people up to new communication possibilities."

A problem with looking at human abilities as resident in states of consciousness is trying to prove that a particular hypothetical ability does not exist. Conclusive proof may be impossible. This problem is related to the problem that a universal negative statement can never be proven unless it is possible to consider all instances. Someone who hypothesizes an ability may look for it in one state of consciousness, and not finding it there can always say, "It must be in a different state." The search can go on indefinitely. This presents the problem of when to call off a search. Yet, it helps one be open-minded because a hypothesized ability could always exist in another state of consciousness.

As taxonomies of abilities are developed for various states, and as we extend the limits of the twelve domains, our list of human potentials is likely to expand vastly. The ability to produce and control states of consciousness voluntarily might be said to be the basic ability in consciousness education just as reading, writing, and arithmetic are the basic abilities of cognitive education, and the 3 R's of the right hemisphere (above) are basic skills of right-hemisphere learning.

Human beings possess an innate ability to exert control over the direction and flow of nerve impulses in any body nerve they choose.

The highest-order intellectual capacities of man reside in, and may always reside in, what we call the unconscious.

Laws of Supermind

Barbara Brown

Increasing Abilities by Expanding Consciousness

*As one learns to select one's state of consciousness (pattern of mental functioning), one increases the number of abilities one can learn, develop, and use.*

Our current education is an education for what we call our ordinary or normal state of consciousness. This one state is probably a collection of different but similar states. Of course, we are not all in this collection all the time; but we assume it's a normal, general state. We have done a good job of developing this states' education, and much remains to be done. But even more needs to be done in other states' educations and in each of the new domains. Combining and orchestrating these domains to work together and researching the best ways to sequence states are not even in their infancy yet. As one learns to create additional states of consciousness, one may learn those states' resident abilities. It probably will be possible to select the right state of consciousness or series of states for whatever task we have at hand. In addition to our ordinary abilities, we may commonly develop abilities such as psychic healing (below) or the placebo ability.

Placebo Ability. We are probably mislabeling when we speak of the "placebo effect." Effect attributes the curing to the inert pill or spurious treatment which is selected exactly for its lack of effect. We should more properly speak of the "placebo ability." Ability attributes the cure to the person, where it actually lies. When we think in terms of an ability rather than an effect, we enter the realm of voluntary human behavior. The placebo ability, like other human abilities, can then be seen as capable of being taught and learned. What methods teach it best? Is it naturally distributed in the population like many other abilities? What characteristics do people high in the placebo ability have? How do

I can no longer protect myself from the reality of starvation by pretending that people who starve are nameless, faceless strangers. I know now who they are. They're just like me, only they're starving. I can no longer pretend that the collection of political agreements we call "countries" separates me from the child who cries out in hunger halfway around the world. We are one, and one of us is hungry.

Anonymous, cited in
The Aquarian Conspiracy

they develop them? What state(s) of consciousness does one use to learn "placeboing" and to practice it?

Therapeutic Touch. The research of Dolores Kreiger, R.N., Ph.D., a nursing professor at New York University, illustrates a practical application of expanded consciousness. When its legitimacy has been recognized at all, the laying on of hands, "therapeutic touch" as she calls it, has traditionally been regarded as a rare gift possessed by only a few. In a brilliant piece of research "Therapeutic Touch: The Imprimatur of Nursing," Dr. Kreiger illustrates that this healing ability need not be for the chosen few. She taught 32 registered nurses to perform therapeutic touch on a variety of patients. Her dependent measure, the hemoglobin count, improved in the 64 treatment patients compared with a control group ($p. < .001$). She received her doctorate at New York University for this study. Central in teaching this ability was the skill of entering a slightly different state of consciousness where this healing ability resides. This ability's rarity may not be due to the erroneous "fact" that only a few gifted people can do therapeutic touch, but to the unfortunate fact that we do not teach access to the state where it resides.

What would be the social benefits of teaching parents, counselors, teachers, and the general population to expand their consciousness to include the state where this ability resides? The benefits would be vast. This alone indicates that consciousness education is a lead worth following. The possible benefits of other human capacities existing in other states may be vaster by far.

Since there are some states of consciousness which we are hardly aware of and have had little experience in, the question comes up: What abilities if any, may reside in these states? There may even be some states which humans have not experienced yet. By learning to control our subsystems of

If every young student knew by the time he finished his first biology class, in grade school, that the body responds to self-generated psychological inputs, that blood flow and heart behavior, as well as a host of other body processes, can be influenced at will, it would change prevailing ideas about both physical and mental health. It would then be quite clear and understandable that we are individually responsible to a large extent, for our state of health or disease.

Beyond Biofeedback

Elmer Green and Alyce Green

consciousness, we may be able to combine them in such a way that we will compose a state of consciousness which has not been experienced before or perhaps felt only very rarely. Assuming that different abilities reside in different states of consciousness, we then ask the questions:

> Are there new entirely unknown abilities which we may discover? Will there be ways to develop analogs of our current abilities in these new states? Will we expand into new skills, new knowledge, new learning?

Consciousness Curriculum

> *An educated person can select the appropriate state of consciousness for his/her purpose, voluntarily enter it, and use and develop the abilities that reside there.*

From a curricular perspective, I call this the Curriculum for the Voluntary Control of States of Consciousness, or "Consciousness Curriculum" for short. This definition of an educated person includes the skills and content which we currently teach, and adds to them. A graduate of a school which uses a consciousness curriculum should know the usual knowledge and skills and should also have the ability to select and enter a large number of states of consciousness at will. Of course, not all ways of developing consciousness are appropriate at all levels of education. A graduate institute specializing in the development of consciousness would do things very different from what would be done by an elementary school teacher. This selectivity is similar to the selectivity we now practice in schools. We do not expect a grade school student to do the same things that we expect a high school student or college student to do. The same holds true in the field of consciousness. However, younger children may want to study consciousness and to know about it without actually practicing the techniques, just as younger children may learn about

The rejection of any source of evidence is always treason to that ultimate rationalism which urges forward science and philosophy alike.

Alfred North Whitehead

airplanes, war, and the living habits of people in far away lands. We do not necessarily expect them to go out and commit war, fly an airplane, or practice those habits.

Liberal Education. As an education for freedom, liberal education takes on an expanded definition when approached from a consciousness perspective. To be fully free, one must be able to go beyond the state-specific thinking typical of today's liberal education into using all states of consciousness fully. We need to take responsibility for selecting our states of consciousness and for developing their resident abilities. Consciousness curricula offer new ways of freedom including the great ideas and major thinkers of the traditional liberal arts, but going far beyond them to include the major states of consciousness. Freedom of the mind now also means freedom from being tied to one or a few states of consciousness.

The social sciences and humanities all stand on assumptions about human nature and the human mind. These assumptions show up in the content of what is taught and in the activities and expectations that social scientists and humanists have for themselves and their colleagues. Tart's challange that psychology is incomplete because it neglects states of consciousness is equally applicable throughout Western thought. Perhaps we feel threatened by other states because many of them surpass or diminish the role of the ego, self, etc. We defend ourselves by pretending that these other states are abnormal and useless aberrations. The ego feels threatened by states that surpass it, so we rationalize them into insignificance. The assumptions about the superiority of our usual awake state have yet to be widely tested, but evidence is accumulating that may break through our parochialism ("Some Assumptions of Orthodox, Western Psychology" Tart, 1975, pp. 61-111). Reasoning, thinking, learning,

In contradistinction to writings on the psychedelics which are occupied with experiences the mind can have, the concern here is with evidence they afford as to what the mind is.....judged both by quantity of data encompassed and by the explanatory power of the hypotheses that make sense of this data, it is the most formidable evidence the psychedelics have thus far produced. The evidence to which we refer is that which has emerged through the work of Stanislav Grof.....The novelty of Grof's work lies in the precision with which the levels of the mind it brings to view correspond with the levels of selfhood the primordial tradition describes.

Huston Smith

Forgotten Truth:

The Primordial Tradition

analyzing, perceiving, remembering, performing, conceptualizing, feeling, and evaluating (even concepts, theories, and paradigms) are all embedded in states of consciousness. Failure to recognize the primacy of states of consciousness is the major intellectual error of our times. When this is recognized and we start to experiment with states of consciousness as a variable, the impact may well trigger one of history's rare and great intellectual banquets. As Bronowski says in The Ascent of Man, major advances in civilization occur when an expanded view of human nature opens doors to new human potentials and expectations. Are we at such a turning point? Many students of consciousness studies think so.

A stunning example of how consciousness studies may deepen our understanding of the intellect comes from Grof's works. Joseph Campbell, author of The Hero With A Thousand Faces (1949) speculates that mythopoetic heros, schizophrenics, and psychedelic mind-explorers all report different versions of the same basic experiences at deep levels of their minds (1972). Philosopher of religion Huston Smith (1978) says that a primary "forgotten truth" underlies the surface differences in major world religions and that this perennial religion is experimentally verified by Grof's mindview emanating from his psychedelic research. Astronomer Carl Sagan (1979) speculates that the three major cosmologies (steady state, pulsating universe, and big bang) appeal to their proponents on the basis of three perinatal matracies as described by Grof. His research also makes it appear possible that the philosophical a prioris of time, space, matter, and objective observer (identity) can become manipulative variables. In 1968 Maslow recommended Grof's work to educators in the Harvard Educational Review. This provoking convergence of literature, symbolism, religion, anthropology, philosophy, psychology, astronomy, and education, implies a fascinating question: Do consciousness studies offer new ways of understanding states

After more than ten years of almost total neglect, it is time to take up the work that was laid down unfinished in the sixties. We need to arrange a way for people to take psychedelic drugs responsibly under appropriate guidance within the law, and a way for those who want to administer them to volunteers for therapeutic and general research to do so.

Psychedelic Drugs Reconsidered

Lester Grinspoon and James B. Bakalar

of consciousness that underlie and unite supposedly separate disciplines? Are there ways of exploring the deep mental strata where thoughts arise? Tantalizing bait for those interested in ideas.

## Jewel Hunt in the Mind

Consciousness educators and psychologists share an exciting discovery about the possible transformation of human life and learning. It is too big to know how to describe fully. It involves greatly expanded ideas of what the human mind is and of how and what we can learn. It includes discovering, exploring, researching, and developing human abilities in all states of consciousness. Just as we are now developing our current normal state and its many resident abilities, we should discover and develop other states and their abilities. Reason is the jewel of our normal state. It brings us the inestimably valuable analytic and linear capacities, including the sequential views of time and space, linear thought, linear time, linear space, and the technologies and sciences of that state -- medicine, law, even telephones, stereo systems, and television sets. If one state can do so much for our culture and our civilization, how much might the systematic cultivation of other states add?

Even imagination may be statebound. If so, the possibilities could go far beyond our current fantasies. Some abilities are probably rare and state specific. Others have state to state analogues; memory, for example operates differently from state to state, while physical height seldom does. How many states are there? Hundreds or thousands, according to Eastern psychologies. Who knows how many other jewels of the mind are yet to be discovered?

That's the essence of science:
Ask the impertinent question,
and you are on your way to
pertinent science.

The Ascent of Man

Jacob Bronowski

Footnote

[1]At its recent annual meetings, AAAS has presented symposia on consciousness (e.g., Lee et al., 1976) and has accepted some parapsychologists as affiliate members since 1969. The American Psychological Association includes transpersonal as a category of major interest for its members as well as a specialty within therapy. An APA division or special interest group is being formed: c/o Dr. Mary Jo Meadow, Department of Clinical Psychology, Mankato State University, Mankato, Minnesota. Among foundations Phi Delta Kappan Educational Foundation and SAGE Foundation have both published in transpersonal/consciousness education (Roberts and Clark, 1975; Fletcher, 1977). Two topical journal issues on consciousness counseling have been published by subgroups of the American Personnel and Guidance Association: Counseling and Values' February 1975 issue was devoted to transpersonal counseling, and Elementary School Guidance and Counseling's Fall, 1979 issue was on holistic health, wellness, and transpersonal helping. The American Educational Research Association has a Mind/Body Special Interest Group, which includes consciousness studies as they apply to education (Dr. Marianne DeVoe, 1709 Split Ridge Road, Knoxville, TN 37922).

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Footnote

2) Piaget's and Freire's uses of "consciousness" should not be confused with its use here. The Brazilian sees several types of consciousness, for example magic consciousness, naive consciousness, and critical consciousness; these different styles of thinking are important because "... to every understanding, sooner or later an action corresponds." (p. 44) The Swiss with his mathematician's and logician's emphasis on thinking, uses "consciousness" to mean the cognizance that takes place when a previously unconscious way of acting becomes conscious. A new, conscious concept replaces the old, unconscious action scheme. With their emphasis on types of thinking, both Friere and Piaget apply the word "consciousness" to types of cognition, rather than applying it to the larger, overall pattern of mental functioning, cognition being part of this whole.

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